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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/423,454	11/08/1999	ROBERT KUTKA	P99.2301	6761

			EXAMINER
26574	7590	08/20/2004	WONG, ALLEN C

SCHIFF HARDIN, LLP
PATENT DEPARTMENT
6600 SEARS TOWER
CHICAGO, IL 60606-6473

ART UNIT	PAPER NUMBER
2613	17

DATE MAILED: 08/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<table>
<tr><td rowspan="3">Office Action Summary</td><td colspan="2">Application No.

09/423,454</td><td colspan="2">Applicant(s)

KUTKA ET AL.</td></tr>
<tr><td colspan="2">Examiner</td><td>Art Unit</td><td></td></tr>
<tr><td colspan="2">Allen Wong</td><td>2613</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 June 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *27-52* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *27-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 27-52 have been read and

considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

1.   Claim 27-29, 35-40, 42-44, 46-50 and 52 are rejected under 35 U.S.C.

103(a) as being unpatentable over Pullen (5,867,221) in view of Wober

(5,748,792).

Regarding claim 28, Pullen discloses a method for encoding and decoding

a digitized image having picture elements, said method comprising the steps of:

grouping all except at least one picture at least one picture elements of

said digitized image into a number of image segments in a first arrangement,

said at least one ungrouped picture element being from at least one area of said

image located between image segments (note fig.1, elements 16, 12, 28, 30 and

32 comprise a first arrangement, where fig.1, element 12 is a compression

processor unit having present frame memory 16 and previous frame memory 30,

a local decompressor 28 and vector quantization table 32, where at least one

pixilated image area is located and obtained by gathering only the pixilated data

difference between the current frame and the previous frame and preparing the

transmission of the pixilated data difference, and the unchanged pixilated data is

not sent for conserving bandwidth; col.11, ln.53 to col.12, ln.28);

encoding said image in said first arrangement by only encoding said

picture elements being grouped into an image segment (fig.1, element 12);

transmitting said encoded image segments from said first arrangement to

a second arrangement (fig.1, element 14 is a transmitter, where the

interconnected elements 18, 20, 32 and 24 comprise a second arrangement);

decoding said transmitted image segments in said second arrangement

(fig.1, element 20);

inserting new picture elements corresponding to said non-encoded picture

elements of said encoded image in said second arrangement in an area between

said decoded image segments (col.8, lines 43-48; fig.1, note image data is

decoded at element 20 into map codes and then utilized for inserting new picture

elements to the non-encoded picture elements);

interpolating said area between said image segments in said second

arrangement (fig.1, note elements 20, 24 and 32 function to interpolate the area

between the image segments, where 32 is the vector quantization tables); and

allocating encoding information resulting from said interpolating to said

new picture elements (fig.1, note elements 20, 24 and 32 function to interpolate

the area between the image segments, where 32 is the vector quantization tables

and element is the regenerated frame buffer, thus the encoding information is

allocated).

Although Pullen does not specifically disclose the limitation based on a

mathematically defined region of said digitized image derived solely from said

digitized image itself. However, Wober teaches the number of image segments

based on a mathematically defined region of the digitized image is derived solely

from the digitized image itself (fig.1B, note acquisition of digital image is done by

element 10 and segmentation of the digital image is done by element 12 to

obtain segmented digitized image to have a mathematically defined region as

shown in fig.2, which illustrates a gathering of digitized image blocks that is

subjected to mathematical filtering and interpolation processes, ie. the discrete

cosine transform and the filtering processes via elements 16, 18, 22, 24 and 26,

that is confined within the digitized image itself, and at element 28, the resulting

image has gone through a series of processes to where the high resolution digital

image is derived from the same low resolution digital image from element 10).

Therefore, it would have been obvious to one of ordinary skill in the art to take

the teachings of Pullen and Wober, as a whole, for implementing Wober system

of improving data image resolution with Pullen's image

compression/decompression system so as to overall improve image quality at the

receiving end in order to display high quality images even if the image data

transmitted was originally from low quality image data (col.2, ln.33-37).

Note claims 27, 43-44 and 46 have similar corresponding elements.

Regarding claim 29, Pullen discloses image filtering (col.6, lines 55-58).

Regarding claims 35-36, Pullen discloses the image segments are image

blocks (see figs.3-5 and 8).

Regarding claims 37-39 and 47-49, Pullen discloses the use of filters for interpolation (col.20, In.54 to col.21, In.19).

Regarding claims 40 and 50, Pullen discloses the H.263 video encoding standard (col.1, lines 39-43, Pullen discloses the MPEG encoding).

1.   Regarding claims 42 and 52, Pullen discloses the use of motion compensation (col.8, lines 48-55).

2.   Claims 30-34 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pullen (5,867,221), Wober (5,748,792) and further in view of Girod (5,854,858).

Regarding claims 30-34 and 45, Pullen discloses image filtering prior to encoding (col.6, lines 55-58). Pullen does not specifically disclose the low-pass filtering of images. However, Girod teaches the use of low-pass image filtering (fig.4, element 403). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Pullen and Girod for applying the use of a low-pass image filter to trim out discrepancies so as to efficiently encode images while maintaining accuracy. Doing so would yield smooth images at the display output.

3.   Claims 41 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pullen (5,867,221), Wober (5,748,792) and further in view of Sebestyen (WO 96/32717).

With regards to claims 41 and 51, Pullen discloses the H.263 video encoding standard (col.1, lines 39-43, Pullen discloses the MPEG encoding). Pullen does not disclose the use of H.245 standard. However, Sebestyen

teaches the use of H.245 standard along with H.263 standard (see abstract and fig.1). Therefore, it would have been obvious to one of ordinary skill in the art to take the teachings of Pullen and Sebestyen as a whole for employing the H.245 standard so as to accurately encode images in an efficient manner, while maintaining with today's highly complex video encoding/decoding standards.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (703) 306-5978. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm.
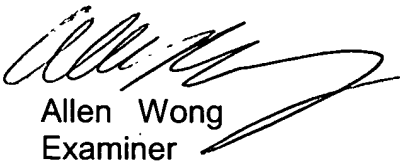
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Allen   Wong
Examiner
Art Unit 2613

AW
8/18/04